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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/075,216	02/14/2002	Michael Alois Kolowski	DN2002024	7021

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Ricahrd B. O'Planick
Department 823, The Goodyear Tire& Rubber Company
1144 East Market Street
Akron, OH 44316-0001

EXAMINER	
MAKI, STEVEN D	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/075,216	KOLOWSKI ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *4-6-04*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 11-21* is/are pending in the application.

4a) Of the above claim(s) *17-21* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 11-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1) Newly submitted claims 17-21 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Original Claims 1-10, drawn to a tire having central arrays each array having at least five tread elements/ "method" in which the length LA of the large elongated pattern is established about equal to the length of the contact patch of the tire, classified in class 152, subclass 209.2 / class 156, subclass 110.1.

II. New Claims 17-21, drawn to a tire having first and second shoulder rows comprising individual blocks of tread elements having inwardly directed inclined surfaces complementary shaped and angled with respect to sides of the array, classified in class 152, subclass 209.18, 209.21 or 209.24.

The inventions are distinct, each from the other because:

Inventions II and I are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination fails to require each array to have at least five tread elements or the length of the large elongated pattern being established about equal to the length of the contact patch. The subcombination has separate utility such as a tire having each array having less than five tread elements (e.g. two tread elements) and the length of the pattern being less than or greater than the length of the contact patch.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for

prosecution on the merits. Accordingly, claims 17-21 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

2) The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3) Claims 1-9 and 11-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As to claims 1 and 12, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of central array forming a repeating "substantially elongate inclined S-shaped pattern of tread elements" (claim 1) / "each array is substantially S-shaped" (claim 12). Although the original disclosure describes each central array as forming a repeating pattern of tread elements, the original disclosure fails to describe (a) the array being "substantially elongate" or (b) the array / pattern as being "S-shaped" / "substantially S-shaped". The original disclosure fails to teach using an array which is "substantially elongate". No guidance is given in the original disclosure as to how long the array must be so as to be "substantially elongate".

More importantly, the original disclosure fails to teach configuring the array such that it is an "S-shaped" / "substantially S-shaped". The original disclosure describes and illustrates three different arrays. Marked up copies of figures 4, 8, and 12 are provided below:

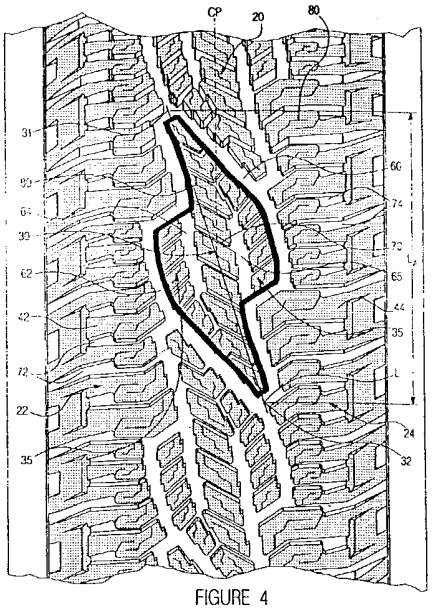

FIGURE 4

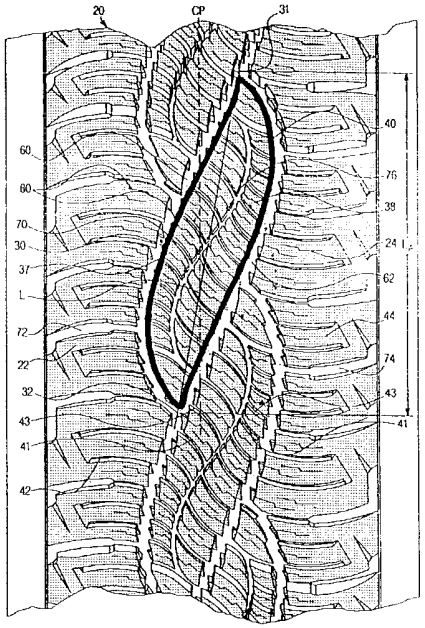

FIGURE 8

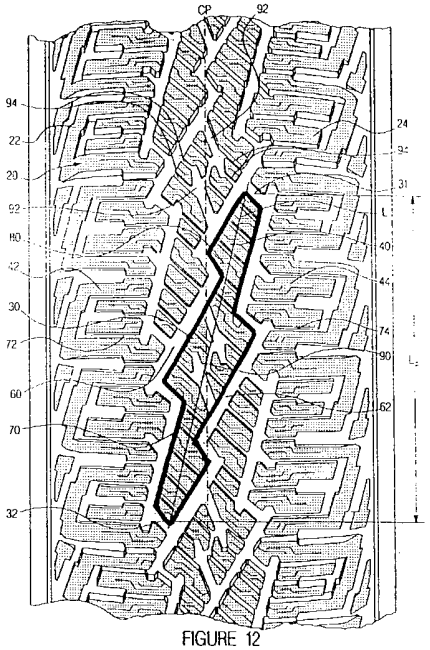

FIGURE 12

The markings were added by the examiner to facilitate understanding of the shape of the arrays as originally disclosed. As can be seen from each of figures 4, 8 and 12, none the illustrated arrays have a S-shape. With reference to figure 8, page 11 describes "elongated S shaped". However, this elongated S shape is for narrow groove 76 instead the shape of array 30.

As to claims 11 and 13, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that

the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of the ends being "tapered". The original disclosure defines 31, 32 as being ends of the array which are formed by the intersection of the boundary grooves, but does not describe those ends as being "tapered" (this term having no explicit basis in the original disclosure). As can be seen from figures 4 and 12, for example, the ends of the array are flat instead of tapered. Also, the original disclosure does not teach reducing the height of the tread element in figure 8 so as to form a "tapered end". As to claim 13, the ends in the array of figure 12 appear to project furthermost, but are flat instead of tapered. Furthermore, the ends of the array in figures 4 and 8 are axially inward of the furthermost axial extent of the array instead of projecting furthermost.

As to claim 15, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter of the first and second boundary grooves being "substantially S-shaped" (this expression having no explicit basis in the original disclosure). Although the original disclosure describes groove 76 as being "S-shaped", it does not describe it as being "substantially" S-shaped. More importantly, groove 76 is a groove within an array instead of the boundary grooves defining the array. A marked up copy of figures 4, 8 and 12 is provided below:

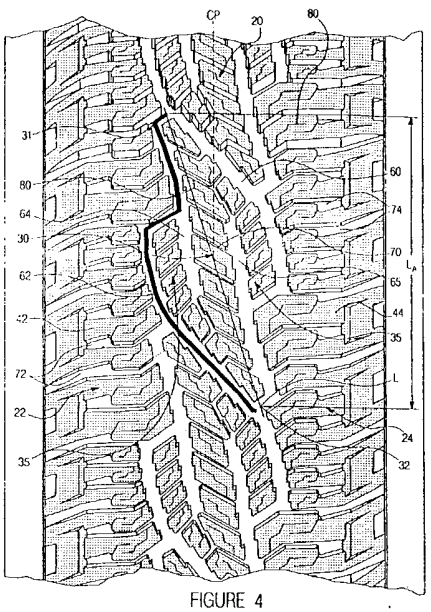

FIGURE 4

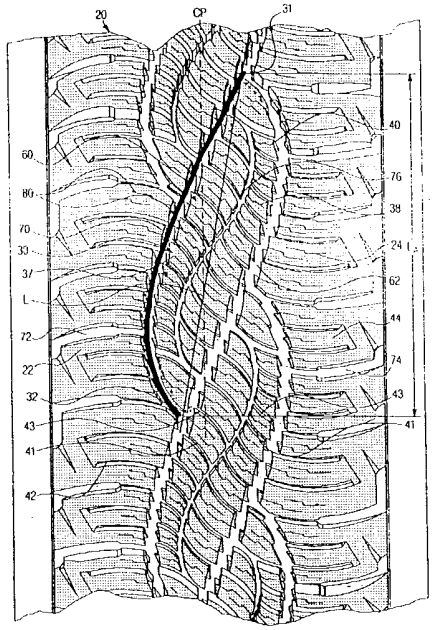

FIGURE 8

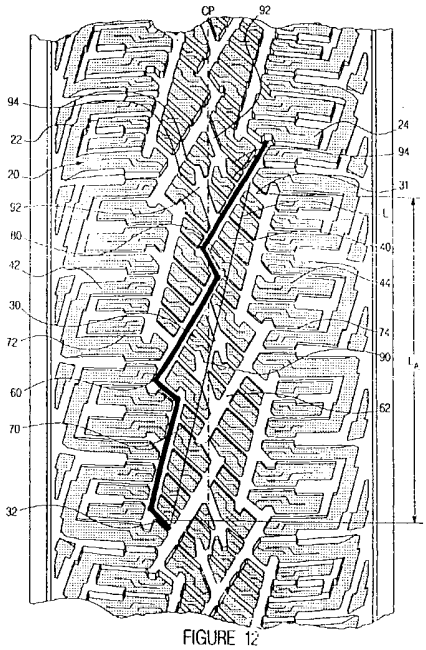

FIGURE 12

The markings, which were added by the examiner, indicate the shape of a boundary groove. As can be seen from the marked up copies, none of the boundary grooves are "S-shaped" or "substantially S-shaped".

4) The following is a quotation of the second paragraph of 35 U.S.C. 112:

> **The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

5) Claims 1-9 and 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the scope and meaning of "substantially elongate" is unclear. It is unclear how long the pattern must be so as to be "substantially" elongate.

As to claims 1, 12 and 15, the scope and meaning of "S-shaped pattern", "substantially S-shaped" array and "substantially S-shaped" grooves is unclear. It is unclear, for example, if "S-shaped pattern" is intended to read on the non S-shaped patterns shown in figures 4, 8 and 12. If so, then the meets and bounds of "S-shaped pattern" is unclear. With respect to "substantially S-shaped", one of ordinary skill in the art is not reasonably appraised of the scope of protection afforded by this language. It is unclear which S-shapes are included by "substantially S-shaped" and which S-shapes are excluded by "substantially S-shaped".

In claim 8, the description of "the tread pattern is ... symmetrical circumferentially adjacent the central arrays" is confusing.

In claim 11, the scope and meaning of "tapered end" is unclear. It is unclear, for example, if the description of "tapered end" requires the tread element at the end of the array to have a triangular shape and/or decreasing height.

In claim 12, it is unclear if the description of "plurality of tread elements" broadens the scope of claim 1. In claim 12, it is suggested to change "a plurality" to --at least five--.

6) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Japan '207

8) **Claims 1, 4, 6-8 and 11-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japan '207 (JP 6-135207).**

As to claims 1, 4, 6-8 and 11-16, the claimed tread reads on the tread having the tread pattern shown in figure 1. The claimed central array reads on the "central array" comprising seven blocks 121A, 121B, 121C, 121D, 121E, etc. In any event: it would have been obvious to use tread elements such that Japan '207's central array is "substantially elongate inclined S-shaped pattern" / "substantially S-shaped" in view of Japan '207's teaching to delimit the central array using slant grooves 26 and portions of grooves 19L, 19R wherein the slant grooves have oppositely curved sections, the slant grooves are inclined at an acute angle theta1 of for example 15 degrees and the portions of grooves 19L, 19R are slightly inclined at an angle theta.

As to claim 4, the circumferential ends of two adjacent slant grooves 26 are connected by a slightly inclined portion of a circumferential groove 19L, 19R. The claimed first boundary groove reads on the combination of one of the slant grooves 26 and the slightly inclined portion of circumferential groove 19L extending from one end of the one slant groove to one end of the other slant groove. The claimed second boundary groove reads on the other slant groove 26 and the slightly inclined portion of

the circumferential groove 19R extending from the other end of the other slant groove to the other end of the one slant groove. These "boundary grooves" are "continuous" as claimed since they each continuously extend from one end to the other end of the array. As to curvilinear, note the oppositely curved portions of slant groove 26. Claim 4 fails to require the boundary groove to be curved throughout its length. In other words, claim 4 reads on a boundary groove which has a straight middle section as shown in either figure 1 of Japan '207 or figure 4 of applicant's disclosure.

As to claim 6, the arrangement of tread elements of the central array in figure 1 is a "large distinctive mosaic shape".

As to claim 7, the inclination of the central array is inclined at an angle corresponding to the inclination of the slant grooves 26 (which are inclined at an acute angle of about 15 degrees).

As to claim 8, the tread pattern in figure 1 is non-directional.

As to claim 11, the ends of the central array are "tapered". See figure 1. In any event: As to claim 11, it would have been obvious to shape the ends of Japan '207's central array such that the ends are "tapered" as claimed since Japan '207 shows forming block 121A with a generally triangular shape.

As to claim 12, note comments on claim 1.

As to claim 13, the taper defined by angle theta causes the "tapered ends" to be projected furthermost.

As to claim 14, the curved portion of slant groove 26 intersects the slightly inclined portion of the circumferential groove at an angle less than 90 degrees (an acute angle).

As to claim 15, "substantially S-shaped" fails to require a shape different from that shown in figure 1.

As to claim 16, note comments on claim 6.

9) **Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '207 in view of Japan '935 (JP 6-143935).**

As to claims 2 and 3, it would have been obvious to use more tread elements (e.g. greater than 10 or 15 tread elements) in Japan '207's central array since Japan '935, also directed to a non-directional tread having repeating central arrays, suggests using more than seven tread elements to define such an array.

10) **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '207 in view of Campos et al (US 4598748).**

As to claim 5, it would have been obvious to one of ordinary skill in the art to provide Japan '207's tread with the claimed three or more distinct pitches since (1) the geometric pattern of the central array of Japan '207 repeats along the circumference of the tire and (2) Campos et al suggests using at least three different pitches for a repeating geometric pattern such as that shown in figure 1 to reduce noise (col. 1 lines 45-47, col. 3 lines 5-10).

11) **Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Japan '207 in view of Japan '607 (JP 4-193607).**

As to claim 9, it would have been obvious to one of ordinary skill in the art to provide the shoulder rows of Japan '207 with different number of blocks without changing the central region and thereby make the tread pattern asymmetric since Japan '607 teaches using different number of blocks in shoulder rows without changing the central region to provide the tire with good straight running performance (compare figures 2 and 4 and see abstracts).

Remarks

12) Applicant's arguments with respect to claims 1-9 and 11-16 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 4-6-04 have been fully considered but they are not persuasive.

Applicant argues that Japan '207 cannot teach tapered ends because the ends of Japan '207's array are wider than the portion of the array extending there between. This argument is not commensurate in scope with the claims and is therefore not persuasive since none of the claims require the middle portion of the array to be the widest.

Applicant's argument that the combination of portions of groove 19 and slant groove 26 cannot be considered a continuous and curvilinear boundary groove is not persuasive since (a) the portions of grooves 19 and the grooves 26 define the entire continuous boundary of the central array and (b) grooves 26 include curved sections.

Applicant comments that groove 19 is not inclined. More properly, the portion of groove 19 between the slant grooves is inclined by angle theta.

Applicant argument that the blocks stack one on another in a circumferential direction is not persuasive since the array formed by the blocks is inclined at angle corresponding to the inclination of slant groove. In other words, a line connecting the ends of blocks 121A of the array is inclined at an angle corresponding to angle theta1. The line connecting the ends of blocks 121A of the array is not oriented at zero degrees with respect to the circumferential direction.

With respect to Campos et al, the examiner notes that (1) the central array in Japan '207 is a repeating geometric unit and (2) Campos et al teaches using different pitch lengths for repeating geometric units to reduce noise.

With respect to Japan '607, the claimed "substantially S-shaped central array" fails to require an array shape different from that suggested by Japan '207.

13) No claim is allowed.

14) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

15) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven D. Maki
June 26, 2004

Steven D. Maki 6-26-04
STEVEN D. MAKI
PRIMARY EXAMINER
~~GROUP 1300~~
AU 1733